SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC
CASE: 51852
SDG: C0AB0
CONTRACT: 68HERH20D0011
LAB CODE: ACE
LAB ORDER ID: P4671
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
P4671-01	C0AB0	1.0
P4671-02	C0AB1	1.0
P4671-03	C0AB2	1.0
P4671-04	C0AB6	1.0

04 Water samples were delivered to the laboratory intact on 11/01/2024.

Test requested on the Chain of Custody was Trace Volatile Organic and Semivolatile Organic by Method SFAM01.1.

The temperature of the samples was measured using an I R Gun. The samples temperature was 3.1 degree Celsius for the samples received on 11/01/2024.

Discrepancies with tags, jars, and/or COC

Issue 01: The attached COC lists VOA analysis, but only TVOA and SVOA analyses are scheduled.

Resolution 01: Per Region 3, the laboratory should disregard the VOA analysis listed on the COC, note the issue in the SDG Narrative and proceed with TVOA analysis of the samples as scheduled.

Issue 02: For SDG C0AB0, the COC lists a 5-day TAT, but the Case is scheduled with a 7-day TAT.

Resolution 02: Per Region 3, the laboratory will disregard the 5-Day TAT on the COC, make note of the issue in their SDG Narrative, and proceed with the analysis of the samples as scheduled with a 7-Day TAT.

Low Volatiles:

The analysis performed on instrument MSVOA_U were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI
The analysis of VOC-SFAM was based on method SFAM01.1_Trace.

The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
Instrument Performance Check met requirements.
The Retention Times met requirements.
The Tuning criteria met requirements.
The initial Calibration criteria met requirements.
The Continuing criteria met requirements.
The Blank analysis did not indicate the presence of lab contamination.
The storage blank did not indicate the presence of lab contamination.

See **Manual Integration report** for the manual integration information at the end of the case narrative.

Calculation:

Low/Med Water Level Calculation

$$\text{Concentration in ug/L} = \frac{(Ax)\,(Is)\,(DF)}{(Ais)\,(RRF)\,(Vo)}$$

Where,
Ax = Area of the characteristic ion (EICP) for the compound to be measured.
Ais = Area of the characteristic ion (EICP) for the internal standard.
Amount of internal standard added in ng.
RRF = Mean Relative Response Factor from the initial calibration standard.
Vo = Total volume of water purged, in mL.
DF = Dilution Factor

Example calculation of **C0AB1** for **Chloromethane**:

Ax= 1800
Is = 125
RRF= 0.352
DF= 1
Ais= 172366
Vo. = 25

$$\text{Concentration in ug/L} = \frac{(1800)\,(125)\,(1)}{(172366)(0.352)(25)}$$

Reported Result = 0.148 ug/L

Final Reported Result = 0.15 ug/L

Relative Response Factor = **Dichlorodifluoromethane**: RUN **VU102324** for **0.5** ppb

$$RRF = \frac{\text{Area of compound}}{\text{Area of Internal Standard}} \times \frac{\text{Conc. of Internal Standard}}{\text{Conc. of Compound}}$$

$$RRF = \frac{5894}{198718} \times \frac{5.0}{0.5}$$

RRF= 0.297

Semivolatiles:

The samples were analyzed on instrument BNA_P using GC Column ZB-GR Semi Volatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA.

Semis volatile Organic sample for water sample was extracted by Method SFAM01.1 on 11/03/2024, The analysis of SVOC-SFAM was based on method SFAM01.1_SVOC.

The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable except criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank Spike for {PB164615BS} recoveries met the requirements for all compounds.
The Blank analysis did not indicate the presence of lab contamination.
The Tuning criteria met the requirements.
The Initial Calibration met the requirements.
The Continuous Calibration met the requirements.

Concentration of Water Sample:

$$\text{Concentration ug/L} = \frac{(Ax)\,(Is)\,(Vt)\,(DF)\,(GPC)}{(Ais)\,(\overline{RRF})\,(Vo)\,(Vi)}$$

Where,
Ax = Area of the characteristic ion for the compound to be measured.
Ais = Area of the characteristic ion for the internal standard.
Is = Amount of internal standard injected in ng.
Vo = Volume of water extracted in mL.
Vi = Volume of extract injected in uL.
Vt = Volume of the concentrated extract in uL
RRF = Mean Relative Response Factor determined from the initial calibration standard.

GPC = Vin = GPC factor (If no GPC is performed, GPC=1)
Vout = Volume of extract collected after GPC cleanup.

No positive target compounds were detected in the samples.

RRF Calculation of standard 20 ppb for Naphthalene with P instrument for method 10/07/2024.

RRF= Area of compound / Area of Internal Standard X Conc. of Internal Standard / Conc. of Compound

= 326983/315808 X 20/20

= 1.035 (Reported RRF)

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____ Name: Nimisha Pandya.

Date: _____ Title: Document Control Officer.